

Appendix C

Correlated PM₁₀ Concentrations and Winds

The following graphs illustrate the direct correlation between wind speeds¹ and PM₁₀ concentrations at select monitoring sites within the Salton Sea Air Basin on March 28, 2016. Note a variety of instruments measure wind speed at different times during any given hour. Therefore, the following graphs reflect the hour of the wind measurement.

IMPERIAL COUNTY SITES (FIGURES C-1 to C-5)

FIGURE C-1
BRAWLEY PM₁₀ CONCENTRATION & WIND SPEED CORRELATION

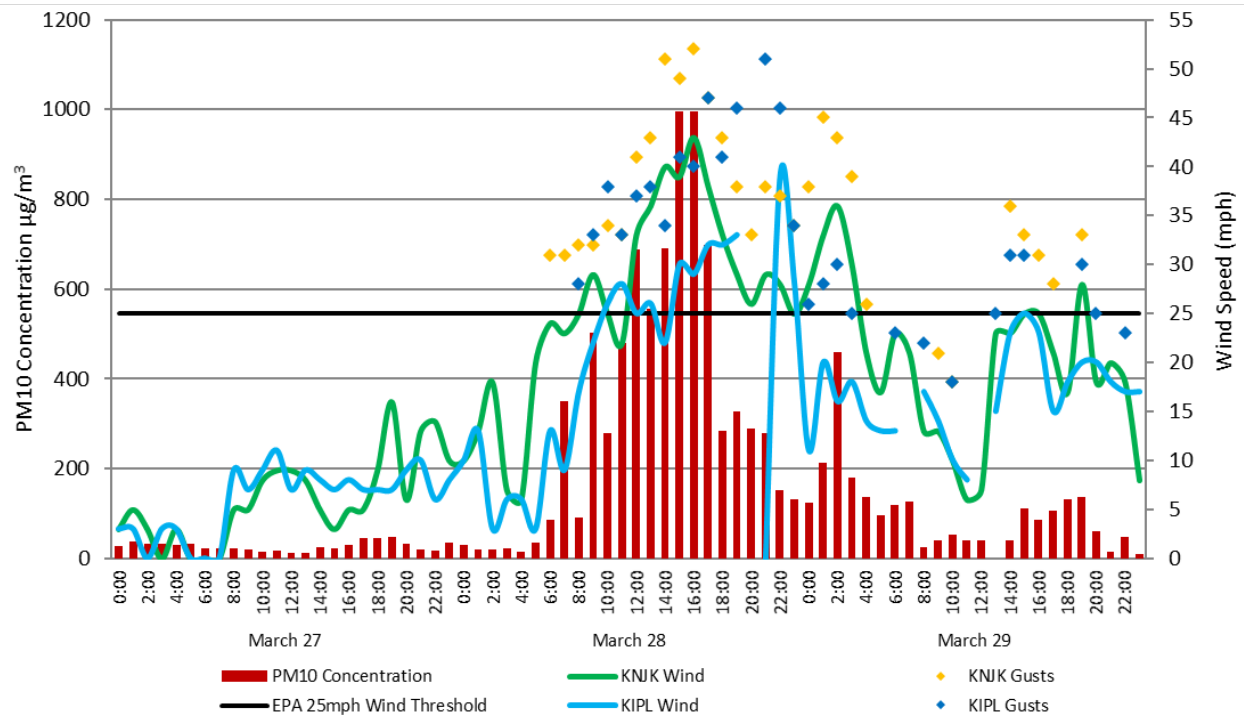


Fig C-1: Brawley saw increased hourly concentrations in response to dust being transported downstream. Brawley does not measure wind speed data. Air quality data from the EPA's AQS data bank. Wind data from the NCEI's QCLCD system

¹ National Weather Service; NOAA's Glossary – Wind Speed: The rate at which air is moving horizontally past a given point. It may be a 2-minute average speed (reported as wind speed) or an instantaneous speed (reported as a peak wind speed, wind gust, or squall); <https://w1.weather.gov/glossary/index.php?letter=w>

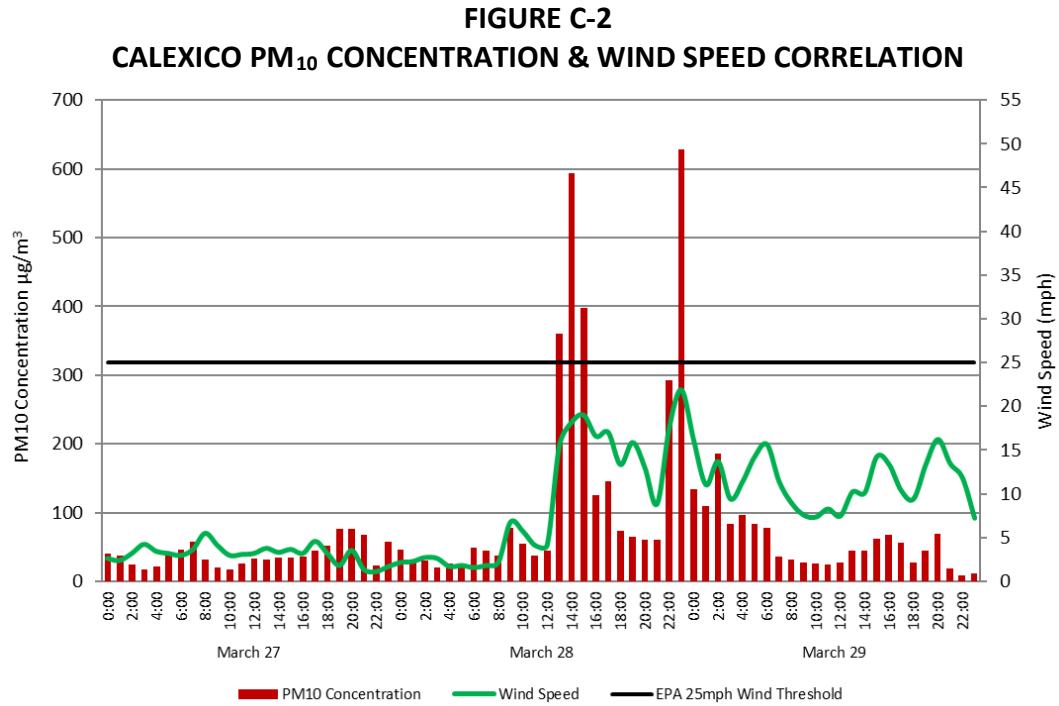


Fig C-2: Winds at Calexico station did not reach the 25mph wind threshold. Air quality and wind data from the EPA's AQS data bank

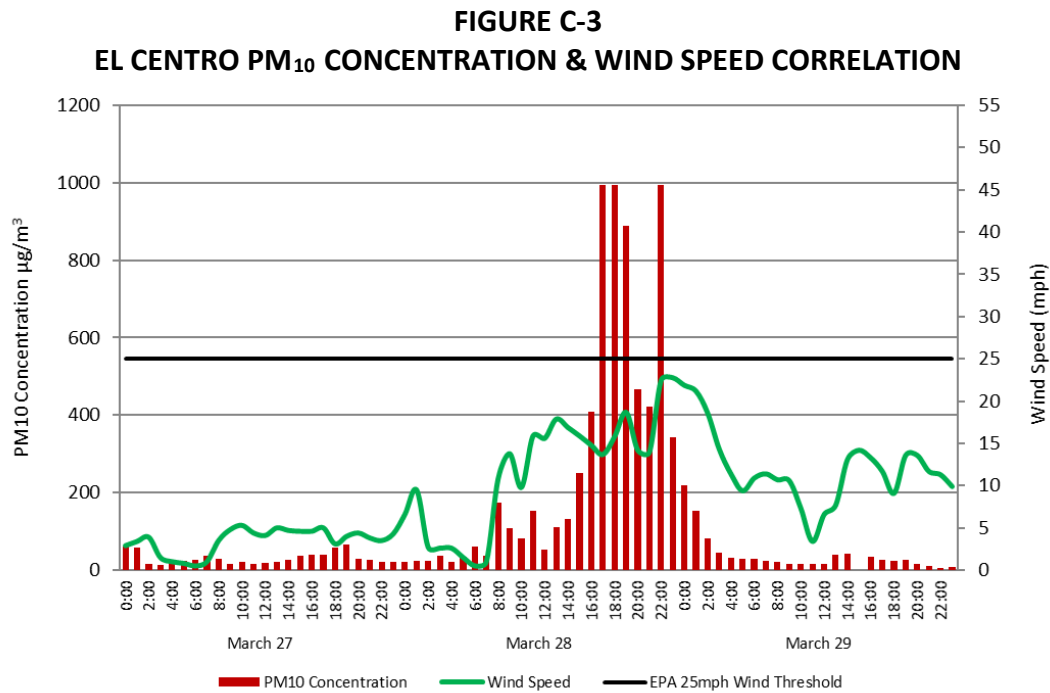


Fig C-3: Winds at El Centro station did not reach the 25mph wind threshold, likely due to the built environment of the city. However, the monitor still exceeded. Air quality and wind data from the EPA's AQS data bank

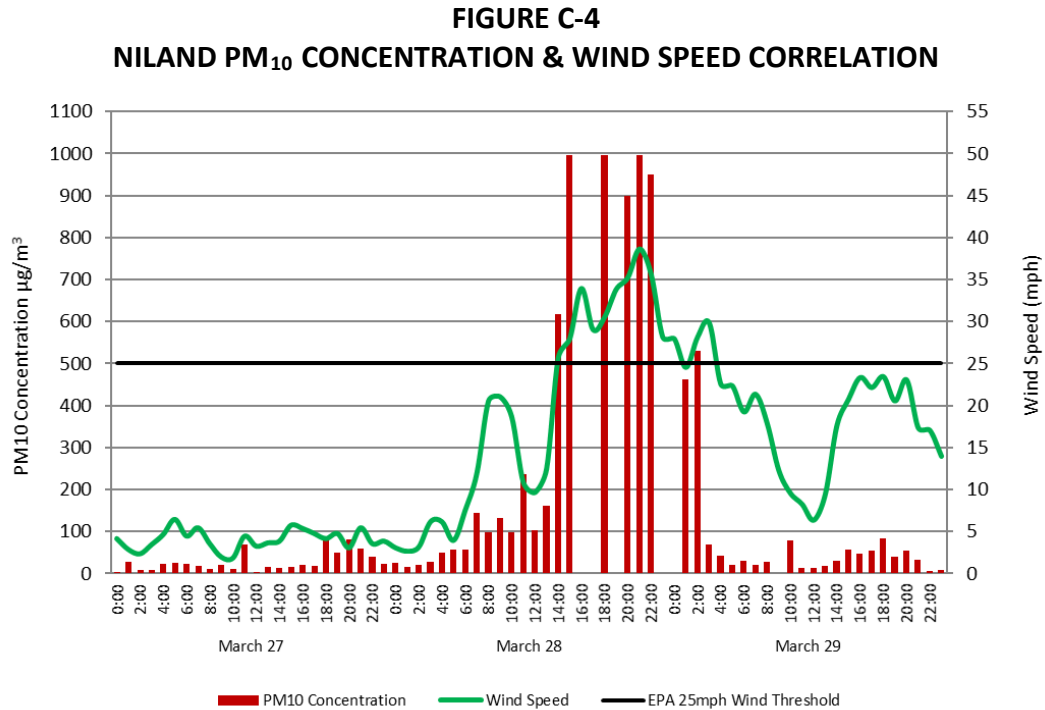


Fig C-4: Winds at Niland station exceeded the 25mph wind threshold. Air quality and wind data from the EPA's AQS data bank

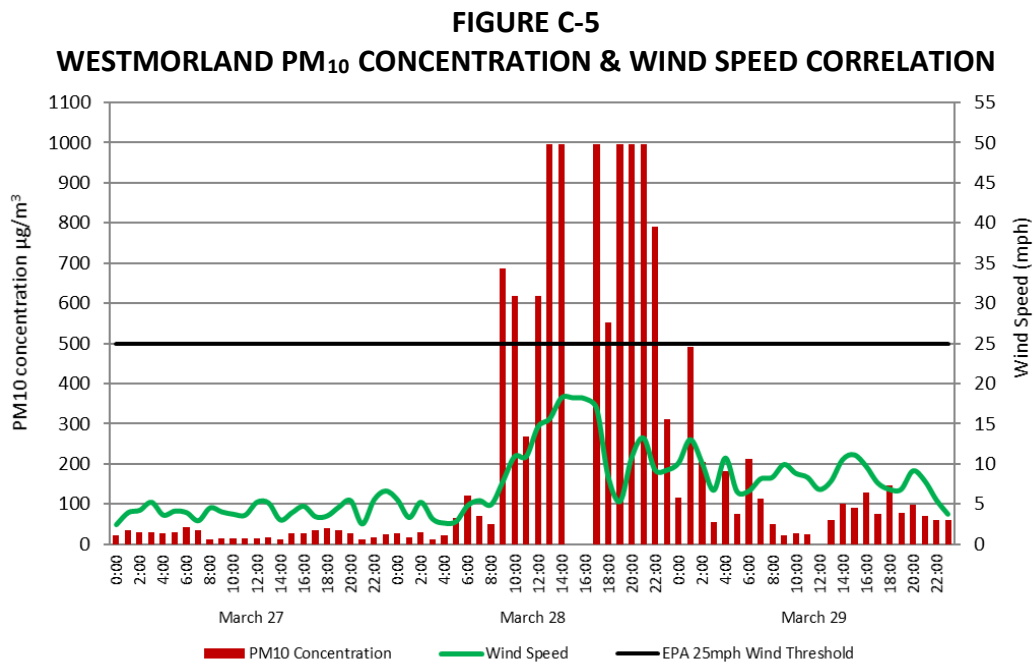


Fig C-5: Winds at Westmorland station did not exceed the 25mph wind threshold. However, dust suspended by higher winds upstream settled out of the air as lower winds passed over the monitor. Air quality and wind data from the EPA's AQS data bank

EASTERN RIVERSIDE COUNTY MONITORING SITES

FIGURE C-6
TORRES MARTINEZ DESERT CAHUILLA TRIBAL PM₁₀ CONCENTRATION & WIND SPEED CORRELATION

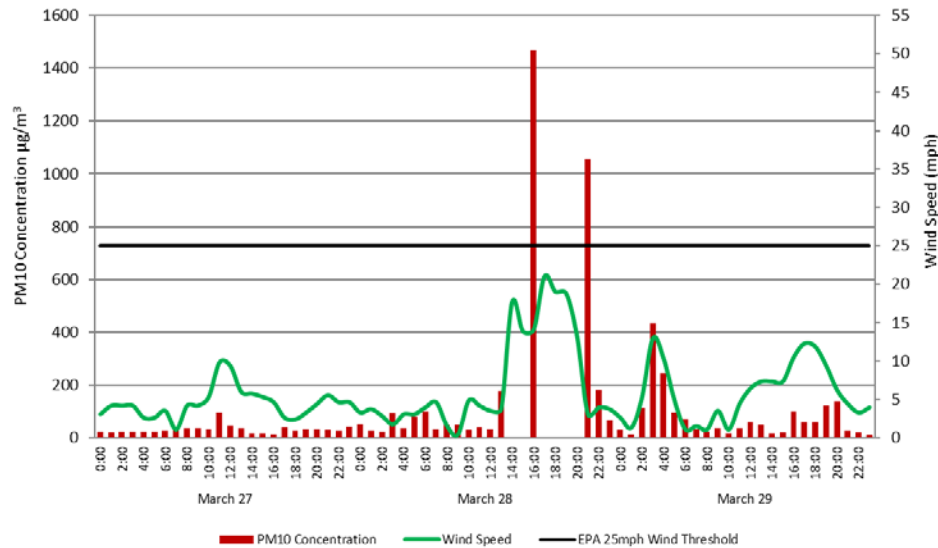


Fig C-6: Winds at the Torres Martinez Desert Cahuilla Indians Reservation station did not exceed the 25mph wind threshold. However, the monitor still measured elevated PM₁₀ levels. Air quality and wind data from the EPA's AQS data bank

FIGURE C-7
INDIO (JACKSON ST) PM₁₀ CONCENTRATION & WIND SPEED CORRELATION

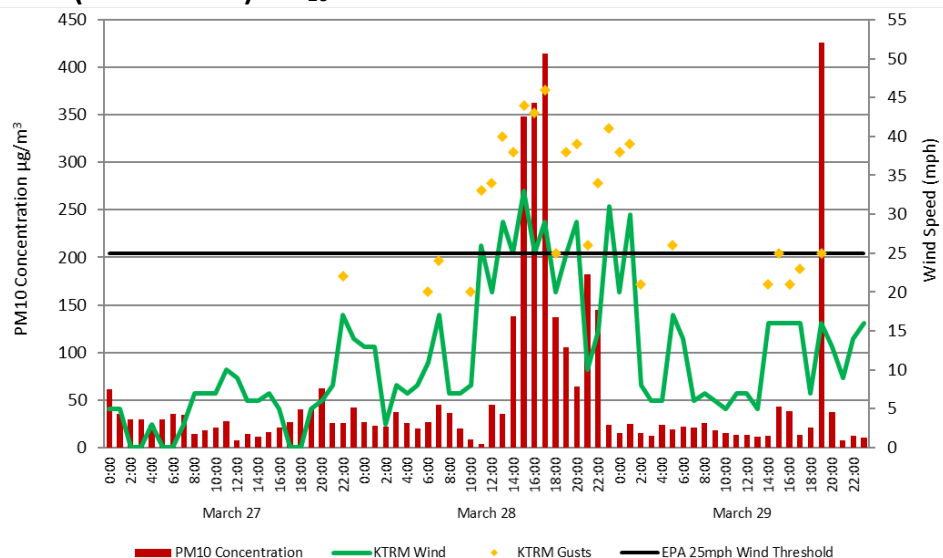


Fig C-7: Winds near the Indio (Jackson St) station at Jacqueline Cochran-Desert Resorts Airport exceeded the 25mph wind threshold which led to elevated PM₁₀ levels. Air quality and wind data from the EPA's AQS data bank. Wind data from the NCEI's QCLCD system

FIGURE C-8
PALM SPRINGS FIRE STATION PM₁₀ CONCENTRATION & WIND SPEED CORRELATION

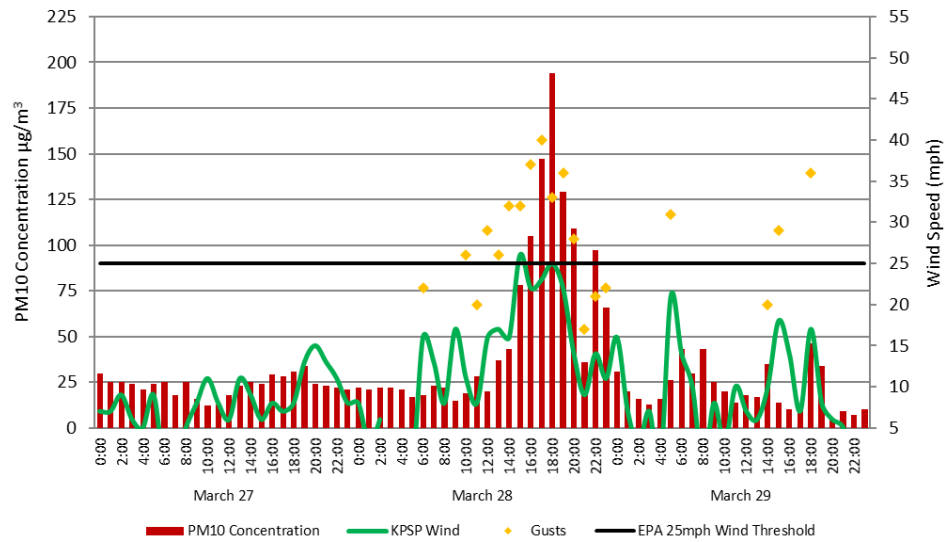


Fig C-8: Winds at the Palm Springs Fire Station exceeded the 25mph wind threshold as measured at Palm Springs Airport (KPSP). Air quality and wind data from the EPA's AQS data bank. Wind data from the NCEI's QCLCD system

SOUTHWESTERN ARIZONA

FIGURE C-9
YUMA, ARIZONA SUPERSITE PM₁₀ CONCENTRATION & WIND SPEED CORRELATION

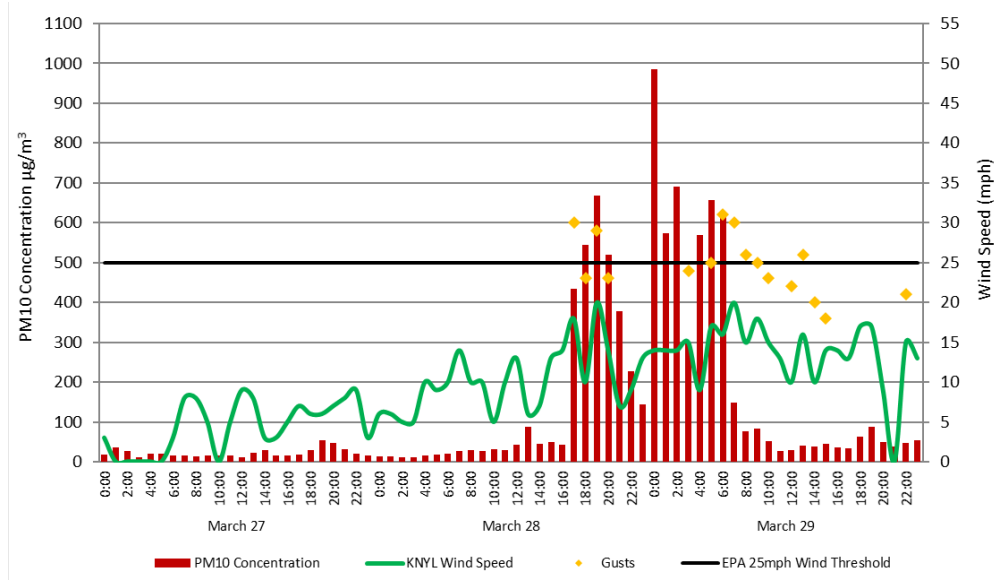


Fig C-9: Yuma Supersite saw a brief rise in PM₁₀ concentrations in response to an increase in winds as measured at Yuma MCAS (KNYL) on March 28. Air quality data from the EPA's AQS data bank; wind from the NCEI's QCLCD system